of immediate financial aid. It is on the intelligent and willing cooperation of the medical profession, the natural warden of the health of the nation, that the achievement of these far reaching, if more remote, results very largely depends.

HEALTH INSURANCE

ITS RELATION TO THE NATIONAL HEALTH *

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The people of the United States are beginning to wake up to the fact that health is no longer a matter for individual concern alone, but is one for collective action on the part of all persons or groups of persons responsible for conditions affecting health. When this idea of the necessity for collective action is thoroughly understood, and it is realized that instead of weakening individual endeavor it will make the individual stronger by making him more economically independent, the American people are going to demand that the responsibility for disease-causing conditions be fixed and that this matter of sickness be provided for in a business-like way and no longer left to haphazard methods.

It was not so long ago that the matter of public schools was opposed on the grounds that the idea was too paternalistic in character and too antagonistic to American ideals and principles. Now the richest and highest in the social scale are sending their children to the public schools. The question of health is more a matter of public concern than the question of education.

Relation of the Federal Government to Health.—Health is not only a matter for state concern but one for federal consideration as well. It is not only a federal question under the "general welfare clauses" of the constitution, but also one under the "interstate commerce clause," since disease is not confined by state lines. The position of the federal government in matters of health is very generally recognized, as shown by the many statutes on the subject. The act approved Aug. 14, 1912, was most sweeping in character. It changed the name of the United States Public Health and Marine Hospital Service and gave it authority to study and investigate the diseases of man and conditions influencing their propagation and spread.

Health Insurance, the Next Step in Welfare Legislation.—The next step in social legislation will be a measure for intelligent relief and prevention of disease. All investigations into conditions influencing the propagation and spread of disease go to show that there are three principal groups mainly responsible for these conditions: 1. The individual, with the greatest share of responsibility. 2. The property owner and employer, with a somewhat less degree of responsibility. 3. The public, with a community responsibility. There are others who may be responsible; for example, the physician in his employment as family physician or company physician; but on the whole the three groups named are the ones which have by far the greatest financial responsibility. Health insurance should by all means include in its operation the responsible groups and properly coordinate the efforts of all agencies at work in this field.

At present those interested in remedial proposals are confining their effort to health insurance for industrial workers, and there are many reasons for believing that this will be the next big step in this field and that the day of this achievement is near at hand. Such expectation is encouraged by the fact that thirty-four states and territories have enacted workmen's compensation laws within the last few years, that measures for health insurance have been introduced into three state legislatures, that two states have created a commission to study social insurance, and that measures to create such commissions are pending in Congress and one state legislature.

The time is therefore at hand when all health agencies and health officials should study this subject of health insurance.

OUTLINE DESCRIPTION OF HEALTH INSURANCE

As stated above, the measures proposed include only insurance for industrial workers, and in this connection the groups with a financial interest are limited to the employee, employer and the public. As operated under governmental systems, the following provisions are usually made:

Membership.—All employed persons in certain occupations, and all persons in other occupations earning less than a specified annual income, shall be entitled in case of illness to certain benefits.

Benefits.—The benefits ordinarily provided are:

(*a*) Cash payment for a limited period (usually twenty-six weeks in any twelve months) of a proportion of the wage, or of a fixed sum, to employees, when disabled by sickness or nonindustrial accident (industrial accidents are provided for under workmen's compensation laws).

(*b*) Medical benefits, which include adequate medical and surgical care, medicines and appliances in home, hospital, sanatorium, or physician's office, to employees disabled on account of sickness or nonindustrial accident during a limited period (twenty-six weeks in any twelve months).

(*c*) Maternity benefits, which include cash payment of a small sum in case of confinements of employees or wives of employees.

(*d*) Cash payment for deaths of insured persons due to sickness or nonindustrial accidents of an amount calculated to cover funeral expenses.

Funds.—The funds are usually provided by payments from employees, employers and government appropriations. In Germany the employee pays two thirds, employer one third, and the government pays for certain expenses of supervision. Under the English national insurance act the employee pays four ninths, the employer three ninths, and Parliament appropriates two ninths. In the case of women and persons employed at certain low levels of wages, the payment of employer and Parliament are increased and the proportion paid by employee is decreased.

Administration.—The administration, both central and local, is usually according to some form of representative government. In the local government, in addition to governmental bodies created for the purpose, unions, industrial establishments and certain societies are utilized for purposes of the local administration of the funds.[1]

It would seem feasible under our form of government that such a system could be provided for interstate employees by federal law and for intrastate employees by state law.

To be adequate as a public health measure, a health insurance system should provide for:

* Read before the Section on Preventive Medicine and Public Health at the Sixty-Seventh Annual Session of the American Medical Association, Detroit, June, 1916.

1. This description is taken from the report of the Standing Committee of the Conference of State and Territorial Health Officers with the United States Public Health Service.

1. Adequate cash and medical benefits to all wage earners in times of sickness and death.
2. The distribution of the cost of sickness among the groups responsible for conditions causing disease, viz., the employer, the employee and the public.
3. The stimulation of the cooperative efforts for disease prevention on the part of the responsible groups named above and the linking of their efforts with existing health agencies.
4. The correlation of the work of all agencies working for the relief and prevention of disease.

Such a law, if enacted by the federal and state legislative bodies, would have two distinct relations to the national health.

As a Relief Measure.—By providing relief for all cases of sickness in this group it would have a decided effect in improving the health of the people.

As a Preventive Measure.—By fixing a definite price for each day lost on account of sickness and by providing a financial incentive to those paying this price to save it by preventing sickness, it would start a movement for preventing disease, just as certainly as the workmen's compensation laws have brought about the nation wide "safety first" movement. And properly coordinated with existing health agencies, the machinery would be already at hand for advising and directing this movement with respect to disease prevention.

RELATION TO HEALTH AS A RELIEF MEASURE

As a relief measure, adequate cash and medical benefits would be provided for all. It has been tentatively estimated that an assessment of 50 cents per employee per week would be ample to provide $1 per day cash benefits, $1 per day for medical benefits and for other necessary expenditures. An equitable division of this assessment would not require the worker to pay more than 25 cents per week. Such a small sum would place these benefits within the means of even the lowest paid workers. The fact is, a very considerable proportion are already paying more than this for what amounts to burial expenses. The law should provide that this amount be deducted from the pay roll each week so that the employee would always be in good standing and not suspended for nonpayment of dues, as often happens under voluntary systems. In this connection it should be remembered that the lowest paid workers are the very ones who are sick the most often and stand in greatest need of the system, and that if not deducted from the pay roll they are the ones least likely to keep their dues paid.

The cash benefit must be sufficient to enable the worker to stop work in order to avail himself of the medical benefits before his health is seriously impaired. At present, even in places where free medical service may be had, the worker, who is just earning a living, cannot afford to stop work for if he does, his wife and children would have to go hungry. Health insurance would tend to break this vicious circle of poverty causing disease and disease causing poverty.

Adequate Medical and Surgical Service.—Adequate medical and surgical relief would bring a service to all which is now only within the reach of the rich or of those who are willing to accept it as charity or as patients in teaching institutions. Furthermore, it is only in the larger centers that these facilities are usually found. Under adequate organization of a health insurance system not only would every workman be entitled to treatment in his home by the physician of his own choice, but hospital and dispensary units would be contracted with or otherwise procured in which scientific treatment of the highest character would be available. The insured persons would soon learn to use this improved medical service.

When, to this provision, the local administrations of the funds are so well perfected that a sufficient number of visiting nurses are provided and committees composed of insured persons are visiting every sick member, the effect on the sick rate will be such that we will wonder that we ever countenanced present methods.

RELATION TO HEALTH AS A PREVENTIVE MEASURE

As a preventive measure the health insurance system should bring to its aid all health authorities, national, state and local, and all volunteer agencies for the relief and prevention of disease.

Funds for Health Work.—It is worth while to outline here a plan which it is believed will make such a scheme possible. Before doing this one must realize that money is the one thing needed by all organizations and individuals engaged in efforts for the relief and prevention of sickness. Without money, or with money available only in small and varying amounts and coming at irregular intervals, the work is spasmodic and oftentimes discontinued for longer or shorter intervals. Furthermore, much of the time of the workers in this field is taken up with a hunt for contributions or lobbying for appropriations. Bearing this fact in mind and remembering that all of the money contributed by employee, employer and state is for the relief and prevention of sickness, some estimate may be made of the amount which will be paid into health insurance funds. There were approximately 30,000,000 wage earners in the United States in 1910 according to the census report of that year. At a rate of 50 cents per week for each one of these, the health insurance fund would amount to over three quarters of a billion dollars annually. Such a sum should eliminate the question of money from the problem and guarantee continuity to any reasonable plan of action.

Without going into all of the details of a health insurance system, it is only necessary to know that most plans provide that the employee pay from two fifths to two thirds of the funds, that the employer pay one third to one half of the funds, and that the state pay expenses of supervision or in some plans as much as one fifth of the funds.

Administration of Medical Benefits a Connecting Link with Other Health Agencies.—The administration as usually provided is central and local, with provision often made for federation of the local bodies. The central body is usually a commission made up of representatives of the groups contributing to the funds. This commission promulgates regulations, supervises local administration, and decides appeals.

The local administration as a rule utilizes business establishments, trade unions, fraternal societies and the like for local administrative purposes, but the exception is ordinarily made that there be at least one local body created of representatives of employees and employers. The latter body is usually called the "local fund," and accepts all workers to membership who are not members of some special fund. The provision is also usually made that no special fund be recognized until the solvency of at least one "local fund" is guaranteed.

In Germany these local bodies are called "carriers," and under the law administer all benefits. In England

these local bodies are called "approved societies," and administer all except the medical benefits. Under the English act the medical benefits are administered in each county or county borough by a governmental body or insurance committee composed of representatives of the approved societies, the community and the physician. The English law provides for free choice of physician by beneficiaries; the German law does not.

It is through the administration of the medical benefits that it is proposed to link up the systems with organizations for the relief and prevention of sickness.

It is believed that this can be done along three lines: (1) by providing efficient staffs of medical officers in the federal and state health departments to carry into effect the regulations issued by the central governing boards or commissions; (2) by providing a fair and sufficient incentive for the active cooperation of the medical profession, and (3) by providing for a close cooperation of the health insurance system with state, municipal and local health departments and boards.

Corps of Full Time Medical Officers.—In view of the experience in both Europe and America, it would seem best to place the administration of the medical benefits directly under governmental agencies, and to insert a provision that no cash benefits be paid except on the certificate of medical officers of the national or state health departments acting as medical referees under the regulations of the central governing board or commission. Such medical officers should be selected according to civil service methods. Since these officers are the representatives of the health departments in the funds, their selection and appointment should also be based on their knowledge of preventive as well as of clinical medicine. After a probationary period of service satisfactory to the health administration, they should be given permanent appointments, subject to removal only for inefficiency or immoral conduct. One of their duties should be to examine each disabled beneficiary and keep themselves informed as to the progress of his recovery. It is needless to say that the referees should not be permitted to engage in private practice.

Free Choice of Registered Physicians.—With such a check on the payment of cash benefits, the medical and surgical treatment provided for beneficiaries could safely be left to the physician of the patient's choice, and payment made on a capitation basis regardless of whether the patient was sick or well, after the manner of the English national insurance act. This method of selection and payment of physicians for the medical and surgical relief would offer every incentive to them to keep their patients well and to endeavor to please by rendering their most efficient service.

Hospitals and Dispensaries.—In addition to the provision for home treatment by the physician of the patient's choice, provision should be made for hospital and dispensary treatment; and to this end, hospital and dispensary units should be established or contracted with, where the very best medical and surgical service would be available for all insured persons.

Value of Such Plan in Disease Prevention.—The greatest value of such a system of administration of the medical benefits would be in the splendid opportunity it would offer for preventing disease among the insured persons and their families, by the organized corps of medical officers, and the improved medical and surgical treatment. It would be through the corps of full time medical officers of the health department acting as referees that the health insurance system would be linked up with other health agencies. It is not necessary to relate here the advantages which would arise from the visits of such specially trained men into the homes of all sick persons, nor is it necessary to tell how these officers, acting as health officers, could further lower the sick rate. The objection could not be raised that such a corps would be too expensive. It would not require more than one such medical officer to approximately every 4,000 insured persons, and at that rate they could more than save their salaries by relieving insurance funds from paying unjust claims. Furthermore, while an estimate cannot be made of the amount to be saved by their efforts in the way of lowering the sick rate, it is safe to say that it would amount to many times more than the sum of their salaries.[2]

With such a system, funds would be provided and every existing health agency and newly created agencies could be utilized and fitted into their proper places and all work together without duplication of effort. Above all there would be a financial incentive given to each interested group to prevent sickness.

The employer who found that he was contributing more per employee per year than his competitor would doubtless inquire into the cause of the difference.

The employee who learned that his neighbor working in the same kind of trade was paying less dues than himself would also be very likely to inquire into the cause of the difference.

The doctor who found his patients were sick so much that he was not able to attend as many insured persons as his brother doctor would have a financial incentive to look into the cause of the difference and remove it.

The city or town which found that a neighboring city or town was providing adequate hospital and dispensary treatment for its insured persons, and not only obtaining more efficient diagnosis and treatment but obtaining it at a less cost, would doubtless establish similar institutions.

The state which found from the returns that its tax rate for sickness was in excess of a neighboring state would have reason for making this an issue in the next election.

The United States Public Health Service, when the reports, for example, showed a marked difference in the sick rate of an iron and steel town in Pennsylvania as compared with such a town in Alabama, would be very likely to order the responsible officers to Washington to explain the differences.

The final result would be that health would be placed on a competitive basis in the political and business worlds: this, too, after providing for the cooperation of all interested groups through the health insurance administration, so that all the agencies for the promotion of health would work in harmony, forming one complete health machine.

To provide a "health insurance system" simply as a relief measure without adequate preventive features would be a blunder; but enacted together with a comprehensive plan for the prevention of disease, there is every reason to believe that it would prove to be a measure of extraordinary value in improving the health and efficiency of the 30,000,000 wage earners in the United States.

2. This description of plan for administration of medical benefits is taken from the report of the Standing Committee of the Conference of State and Territorial Health Officers with the United States Public Health Service.

ABSTRACT OF DISCUSSION

ON PAPERS OF DRS. RUBINOW AND WARREN

DR. ALEXANDER LAMBERT, New York: Make state officials the referees. The referee is then not considered as one of the medical corps. Because, just as soon as you make the man who decides whether a patient is sick also decide whether or not he shall go to work, you increase the expenses and put a possibility of undue influence between the patient and the physician which is human and cannot be ruled out. In England the panel doctor shoulders the burden of the decision as to whether or not a man shall go back to work, hence the law does not work without friction. In Germany nearly 31 to 41 per cent. of the questions that are sent to the referee either never come up to him for decision at all, for the patient goes to work, or else he sends them to work immediately.

How is the medical profession to be remunerated? All our medical service is a contract. The form of contract which is condemned is that which exploits the service of the physician by forcing him for inadequate pay to give neglectful, hurried service to his patients. Capitation has been the usual method of remuneration under these contracts.

In England there is not sufficient care for the seriously sick; there is not adequate provision for hospital care, and there is no proper provision for a second opinion from some person in consultation. Germany takes from 3 to 4 per cent. of the wages from the employee, and from the state whatever it costs to give adequate service. The English will not give eye-glasses or trusses to the sick when the price of either is not as much as the weekly wage they pay a man when he is on the sick funds. Germany, on the other hand, would spend $20 or $30 for an artificial limb to get a man back to work. Another form of capitation is pool capitation. Each service rendered is charged against a lump sum of money. At the end of the quarter the total number of points of service are divided into the total sum of money. The point is invariably less the more work you do; the less work you do the more you are paid.

Another method of capitation is to divide the total sum of money into (1) a special fund, which pays first for consultations and extra services, and (2) a regular fund to be paid out by regular capitation. Another method is to pay by attendance. The patients like it best because they get the best service that way. However, it does cost more and you cannot estimate the expense in advance so accurately as you can by capitation. There are three antagonistic groups in your health insurance law—the interests of the carrier, the workman, and the physician. The carriers must give a fair return to the physicians and justice and fairness to the wage earner in the matter of his sick claims. They, on the other hand, have a right to demand that the physicians shall give honest service, a willing and an adequate service up to any limit that medicine knows. Physicians, on the other hand, must agree that they will help the administration to blot out malingering and valetudinarianism. They must give a willing and an adequate service, or they must accept the inevitable control of the layman, who will force them to do it.

DR. EDEN V. DELPHEY, New York: There is no crying demand for compulsory health insurance by masses of the wage earners; in reality they are opposed to any such plan. Nor is the rank and file of the medical profession certain that they wish to merge their individuality into a part of a great machine—changing from an individualist to a socialist. The health insurance bills introduced into the legislatures of New York, New Jersey and Massachusetts are identical, word for word, and they have all failed of passage. At present in New York State the state fund is insuring employees under the workmen's compensation law at a much lower rate than are the casualty insurance companies.

In order to be acceptable to the medical profession every health insurance law should contain provisions arranging for: 1. Adequate representation on all boards having to do with medical matters. By adequate representation is meant an equal representation with the other parties to the contract; the representative should be a physician who has been in the habit of attending sick wage earners. 2. The formation of lists or panels containing the name of every legally qualified medical practitioner. 3. The sick insured wage earner shall have the right to choose a panel physician from any panel, subject only to the acceptance of the patient by the physician. 4. The insurance carrier shall make all contracts for medical attendance and treatment only with organizations composed of one or more panels in the insurance districts, to which organization or association every panel physician in that district must belong.

This prevents the insurance carrier from getting poor and needy physicians to compete unfairly with each other for these cases.

Other points to be observed are:

1. Impartial referees, appointed and paid by the state. The decisions of the referees may be appealed from to the council and commission.

2. Determination of the maximum number of patients which any one physician can properly attend and treat.

3. When less than all the persons earning under the specified amount per year are insured, the payment for medical services shall be by capitation. When less than the entire number of sick persons are to be insured, the insurance carriers will try to make the medical fee low on the ground that it is at least sure of collection.

4. Arrangement for treatment of the sick insured wage earners by specialists.

5. Determination of the status and relation of the panel physicians to the hospitals caring for the sick wage earners, whether they are to be created or now exist. We must consider it as purely a business proposition, and instead of trying to be purely altruistic, we must take care that the medical profession is properly compensated.

DR. BENJAMIN S. WARREN, Washington, D. C.: I believe that the medical referee will solve many of the problems of administration of medical benefits and bring together the medical profession, link them up with the health insurance system, and with the health departments. I want to emphasize the part health departments should play in a health insurance system. They should be called on to provide the disease-prevention machinery. I do not believe they realize the opportunity which a system of this kind offers to them. I understand health departments may be weak in some states and may be opposed by the health insurance system, and meet with a strong opposition in this regard, but that is no reason why they should be eliminated from the scheme. They have a definite place in this scheme and the corps of medical referees is the link which should coordinate health departments with health insurance systems. A medical referee will be a better referee if he represents an impartial body which has no financial interest in his decisions. If he represents the insurance fund, he would be employed by the funds, and would naturally have some leaning that way. Even if he should not have such a bias, the employee, or the claimant would presume he had. The fact is he could not be a referee if he represented one of the interested parties. I believe I am right in that. He should be employed by the state and the state should, in this instance, be the state health department. As to the capitation system of payment of physicians or the visit system payment, provision should be made for free choice of physicians. With the referee system as a check the medical treatment can safely be left to a physician chosen by the patient and payment made on a capitation basis without regard to whether the insured person was sick or well. Such a system of selection and payment would be an incentive to the doctor to please his patient and keep him well. Furthermore, the medical practitioner will be a check on the medical referee. This plan will avoid the defects found in the German and English systems. It might be of benefit to limit the number of patients who can select the same doctor. This has been proposed in the last draft of the model bill drawn by the Committee of the American Association for Labor Legislation. As to the attitude of labor on this question, I will admit that the president of the American Federation of Labor opposed the idea of compulsory health insurance, but he does not oppose the idea of voluntary health insurance at all. Furthermore, the Commission on Industrial Relations got out a report which four of its members signed: Mr. Garretson of

the Brotherhood of Railway Conductors; Mr. O'Connell and Mr. Lennon of the American Federation of Labor and the chairman, Mr. Walsh. The report recommended a health insurance system for all interstate employees. As to the effect on the individual, it is far from being socialistic. It is more like the public schools; it encourages individual effort and it promotes individual success by making the individual more economically independent and able to take care of other necessities of life. Furthermore, the workman will own these funds, they will be part his; he will be running them and their management will be democratic. The workman will be entitled to the benefits which will be in no way a charity.

DR. I. M. RUBINOW, New York: Dr. Delphey makes certain definite statements, as, for instance, that neither workmen, employers nor physicians want this thing.

As far as the relation of organized labor to health insurance is concerned, Dr. Warren has already answered it. I would also like to inform Dr. Delphey that after Mr. Holland, the chairman of the New York Federation of Labor, had opposed a bill at Albany on March 14, he was reprimanded very severely by the New York Central Labor Union for his attitude in the matter.

As to the attitude of employers, the National Association of Manufacturers a few weeks ago came out very strongly in favor of compulsory health insurance applied to all wage workers. And as far as the medical profession is concerned, the statement of President Blue yesterday, and official statements by the House of Delegates, place the medical profession, or at least that part of it represented in the American Medical Association, on record.

SOME BACTERIOLOGIC OBSERVATIONS ON EPIDEMIC POLIOMYELITIS

PRELIMINARY REPORT *

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During the past months poliomyelitis has been mildly epidemic in Chicago, and the relatively large number of fatal cases indicates that the current infection is highly virulent. In the work discussed briefly here the brain and cord were removed under sterile conditions as soon after death as possible, and cultures made immediately. Small pieces of tissue, which had been washed thoroughly, were macerated in sterile normal salt solution and the emulsion inoculated into various mediums, as, for example, ascites fluid and ascites dextrose agar containing a small piece of sterile rabbit kidney,[1] ascites dextrose broth, and coagulated normal horse serum, both aerobically and anaerobically. The cultures were incubated at 35 C. for from one to seven days.

In seven of the eight cases examined thus far bacterial growth developed in the aerobic ascites dextrose broth and agar cultures after eighteen hours, while in the anaerobic cultures a definite growth usually did not appear until after from three to seven days, and then often very scantily. In six of the seven instances a pure culture of a gram-positive micrococcus was obtained. In one instance the cultures gave also a gram-negative bacillus.

The coccus grows rapidly in aerobic ascites dextrose broth as a granular material along the side of the tube, gradually settling to the bottom as a white flocculent sediment. In the anaerobic cultures made according to the technic of Flexner and Noguchi growth is very slow; after from three to seven days there is a very small amount of sediment and some turbidity in the medium around the tissue. Morphologically the organism varies with the medium on which it is grown. In ascites dextrose broth it is gram-positive, arranged in pairs and short chains. In anaerobic culture it is variable in size, usually very small, gram-positive, arranged in pairs, clumps and chains, with an occasional large form among the minute bodies. On blood-agar plates the organism grows in small dry colonies, which produce a faint green halo and a slight degree of hemolysis. Cultures from the heart blood and from the cerebrospinal fluid after death thus far have not yielded this micrococcus but it has been obtained from the mesenteric lymph nodes.

The organism is of low virulence for rabbits but when injected intravenously in large doses lesions of the central nervous system are produced, with paralysis which may resemble that of infantile paralysis, especially as it affects the extremities. Intracerebral injection of the organism soon after isolation has produced paralysis in the monkey. The affinity for the central system in rabbits seems to disappear after the third or fourth transplant on artificial mediums. Subcultures from a single colony of the coccus have produced paralysis in rabbits within three days after intravenous injection.

Questions that arise, the filterability of the organism when grown in various mediums, immune reactions, and other cultural characteristics, are under investigation.

In view of the accepted facts in regard to the virus of epidemic poliomyelitis it would seem most reasonable to regard the micrococcus described as a secondary invader, but further work is necessary before its significance can be fully understood. The great interest in poliomyelitis at this time and the much greater amount of material now available for the study of the disease in many places other than Chicago are the reasons for this preliminary report.

* From the Memorial Institute for Infectious Diseases, Chicago.

1. Flexner and Noguchi, Jour. Exper. Med., 1913, xviii, 461.

A Simple Device for Locating Foreign Bodies in Fingers.—Location in a busy clothing manufacturing district gave rise to the necessity for a simple method of determining the presence and location of foreign bodies, such as needles and splinters, in fingers. A piece of black woolen cloth 8 inches square was fastened to a piece of adhesive plaster of equal size, and in the center an oval opening was made measuring five-eighths by one-half inch. By placing this over an electric light supplied with a reflector and placing the finger over the hole, excellent transillumination is obtained, and by making pressure with a pointed instrument over the suspected area, the object can be brought out more clearly. If the field is rendered bloodless while operating, the finger may be placed over the opening and the object can be again accurately located. This device is simple, inexpensive and indestructible. It is more easily adapted than pocket flashlights, etc., to the finger, and reduces to a minimum the number of cases requiring roentgenograms. Daily use for the past six months by several workers in the accident room has proved its efficiency.—ROSCOE C. WEBB, A.B., M.D., Assistant House Surgeon, New York Hospital, New York.

Double Impalement.—The *Medicina Contemporanea* of Lisbon reports that a man in a quarry was tamping the charge in a hole he had just drilled when a premature explosion drove the long wooden rod through his neck. As he was flung up in the air, the rod broke and the other half transfixed him also, through the chest. The hemorrhage was slight and there was no subcutaneous emphysema or appreciable disturbances with breathing; the arms showed no signs of vascular or nervous trouble, and in three months the man was dismissed from the hospital. The wood was sawed off close to the skin and the rods were pulled out from the front.